



The Raleigh Amateur Radio Society's **EXCITER**

GET INVOLVED

- RARS General Membership meeting: Second Tuesday of the month.
- The RARS net meets every night except Saturday @ 8 p.m. on 146.640.
- The RARS Technical & Trader's net: Saturdays @ 8:00 PM on 146.64.
- ~~RARS meets for a monthly dinner on the First Tuesday of each month.~~



PUBLIC SERVICE EVENTS

Interested in helping? Visit <https://www.rars.org/public-service.php>

frequently for our 2020 ham public service schedule.

RARS General Meeting

Main Topic: RARS Officers election & The IEEE MOVE truck

Presenter: Election committee & Jay Diepenbrock, KM4EP

Date: November 10, 2020

Time: Meeting at 7:30 PM, informal gathering at 7PM on Zoom.

Presidents Comments

November is the month for elections, and RARS is no exception. At the November 10 meeting, members can vote on officers and members of the board of directors, as provided by our bylaws. Nominees for these positions were introduced at the last meeting in October, and their names are listed elsewhere in this Exciter. Members also have the opportunity to nominate other candidates for board positions if they wish.

The four officers, President, Vice President, Treasurer, and Secretary are installed for two year terms. President and Secretary were elected last year. VP and Treasurer will be elected this year.

[Continued on page 4](#)

RARS Officers

PRESIDENT

John Honeycutt
N8ZU
919.417.2477
jfh49@bellsouth.net

VICE PRESIDENT

Tom Lewis
N4TL
N4TL2@yahoo.com

SECRETARY

Mark Kilmer
KM4JRH
919.676.0110
mark.kilmer@gmail.com

TREASURER

Greg Seamster
KE4PAX
919.859.0029
KE4PAX@arrl.net



The Raleigh Amateur Radio Society

The Raleigh Amateur Radio Society, Inc. (RARS) was founded in 1969 and continues to serve and support the amateur radio community in the greater Triangle area. In 1999, the society incorporated a new RARS and obtained 501(c)(3) non-profit tax status.

The objectives of the club are to promote worldwide friendship through amateur radio; to be of public service by providing radio communications in times of disaster, emergency, or civic needs; to educate members in radio technique, and to provide training classes to assist in obtaining amateur radio licenses.

Anyone interested in amateur radio is eligible to apply for membership. Dues for regular licensed amateurs are \$18 per year (from July 1 through June 30). Additional immediate family members pay \$5 each per year. Dues for licensed amateurs older than 59 or younger than 16 are \$12 per year. Dues for non-licensed associate members are \$9 per year. Applications for membership may be obtained from the treasurer or on the RARS website.

<https://www.rars.org>

Exciter

The Exciter is the official newsletter of the Raleigh Amateur Radio Society. It appears each month as a PDF on the RARS website at www.rars.org. Members receive email notification when the latest version is available. Please provide your email address to the Treasurer.

The Exciter welcomes articles, advertisements, and other contributions. To submit a piece to the newsletter, please contact the Editor. The Editor reserves the right to edit any and all pieces. The submission deadline for each month's Exciter is the Saturday that is ten days before the general meeting. All submissions must be final. Drafts are not accepted.

The views expressed in the Exciter are those of the individual authors and do not necessarily reflect the views of the Editor or RARS.

Tom Lewis, N4TL, editor (editor@rars.org)

For Your Information

RARS General Meeting

Date: Second Tuesday of each month

Location: Ridge Road Baptist Church 2014
Ridge Road Raleigh, NC, 27607

Time: People begin arriving at 7 p.m. The
meeting officially begins at 7:30 p.m.

RARS Monthly Dinner

All members and guests are welcome to
the monthly (first Tuesday) RARS Supper,
6:30PM, at the IHOP Restaurant, 7471 Six
Forks road, 27615. Its on the corner of Six
Forks road and Sawmill Road, 6:30 PM to
8PM They have a room for us that is to the left
when you enter the restaurant. Informal and
Dutch, just bring your appetite and best rag to
chew.

RARS Repeaters in Raleigh

145.130, 146.640 and 444.525

Join us for the nightly RARS net at 8 p.m.
on the 146.640 repeater. All hams holding a
Technician class license or higher are invited
to check in. We welcome both RARS and non-
RARS members to the net.

There is a net Listing on the RARS web-
site click here. <https://www.rars.org/nets.php>

VE Testing

The RARS VEs will accept walk-in testing in
February, May, August and November at
5:30PM, prior to RARS membership meetings
at Ridge Road Baptist Church; the RARSfest
in April; the Cary Swapfest in July; the JARS-
Fest in November; and following RARS license
classes. Please bring a photo ID, your origi-
nal and a copy of your current license, your
\$14 exam fee, and any valid CSCEs that prove
passing elements beyond that of your current
license. Visit <https://www.rars.org> for more in-
formation.

RARS Net Monthly Summary

October 2020

RARS Net Summary

Checkins: 567

Minutes: 1165

Sessions: 31

Quarterly 10 Meter Net

Checkins: 10

Minutes: 45

Sessions: 1

Virginia Enzor NC4VA

RARS Net Manager



Picture of a 4-400 tube in a 600 meter amplifier.

It's the last picture on this website page.

http://w5jgv.com/4-400A_600M_amplifier/

Presidents Comments continued

The other board members are committee chairs for the many activities that RARS sponsors, such as the repeaters, the nightly nets, Field Day, QSO Contest, License Classes, Testing, the Web Site, and others. With a few exceptions, those nominated are veterans in their positions. They know how to make things run smoothly, and we can count on them all.

Some newcomers who are nominated for the board include Jeremy Lindsley, KB4JDL, for Public Service chair, Curt Phillips, W4CP, for Field Day chair, and Brantley West, K4CBW, for Youth Director.

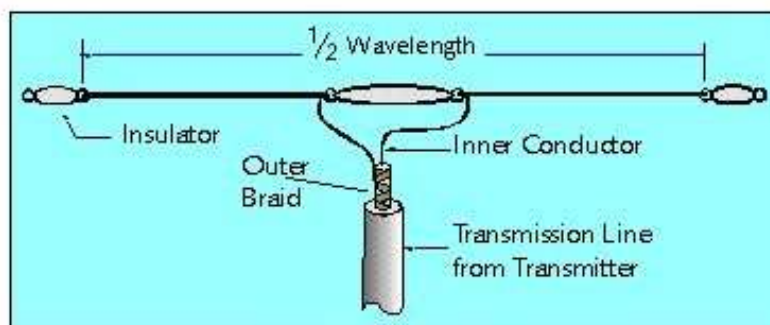
The complete list of nominees is on [page 5](#) of this issue of the Exciter.

Nominations for RARSfest chair, and Public Information Officer will be made at a later meeting. Many thanks to the Nominating Committee, Chair Chuck Littlewood, K4HF, and members Alan Pitegoff, AB4OZ, and Mark Kilmer, KM4JRH.

Members are welcome as guests at board meetings, held on the third Tuesday of each month. Zoom links will be provided on request. New ideas are always welcome. Contact me if you wish to propose new ideas or comments, so I can put your participation on the agenda.

Please plan to vote for the RARS board on November 10. Hopefully, our election will be calmer than some others I won't mention, and here's hoping those other elections will long be decided before we meet for ours!

John Honeycutt, N8ZU



Dipole Antenna

October 13, 2020 RARS meeting

Club president John Honeycutt, N8ZU, started the meeting at 7:30. one of the items covered was the Nominating committee report.

2021 Nominations Committee Report/Recommendations

RARS Officers for a Two Term:

Vice President: Tom Lewis, N4TL
Treasurer: Greg Seamster, KE4PAX

Board Members for 1-year term:

Public Service Director:	Jeremy Lindsley, KD4JDL
Public Information Officer:	Postponed
RARS Exciter Editor:	Tom Lewis, N4TL
RARSfest 2021 Chairperson:	Postponed
RARS Net Manager:	Virginia Enzor, NC4VA
Director at Large	Alan Pitegoff, AB4OZ
Director at Large	Tadd Tolberg, KA2DEW
Director at Large	Ken Latchum, AD4GX
FM Repeater Chair:	Chuck DeCourt, W3WZN
W4DW, W4RNC, N4RAL Trustee:	Jeff Wittich, AC4ZO
ARRL Liaison:	Chuck Littlewood, K4HF
RARS Education Director:	Carl Davis, W8WZ
RARS Youth Director:	Brantley West, K4CBW
RARS Web Master:	Hank Montgomery, K4HM
RARS Food Service Chair:	Richard Kroeger, N1FUA
RARS NC QSO Party Chair:	Marty Young, W4MY
RARS 2021 Field Day Chair:	Curt Phillips, W4CP
RARS Volunteer Exam Coordinators	Liz, K04CK & Joe White, WA4GIR

Submitted by Chuck Littlewood, K4HF
Nominating Committee Chair



October 13, 2020 RARS meeting

After the business meeting the members listed here participated in our Show and Tell.

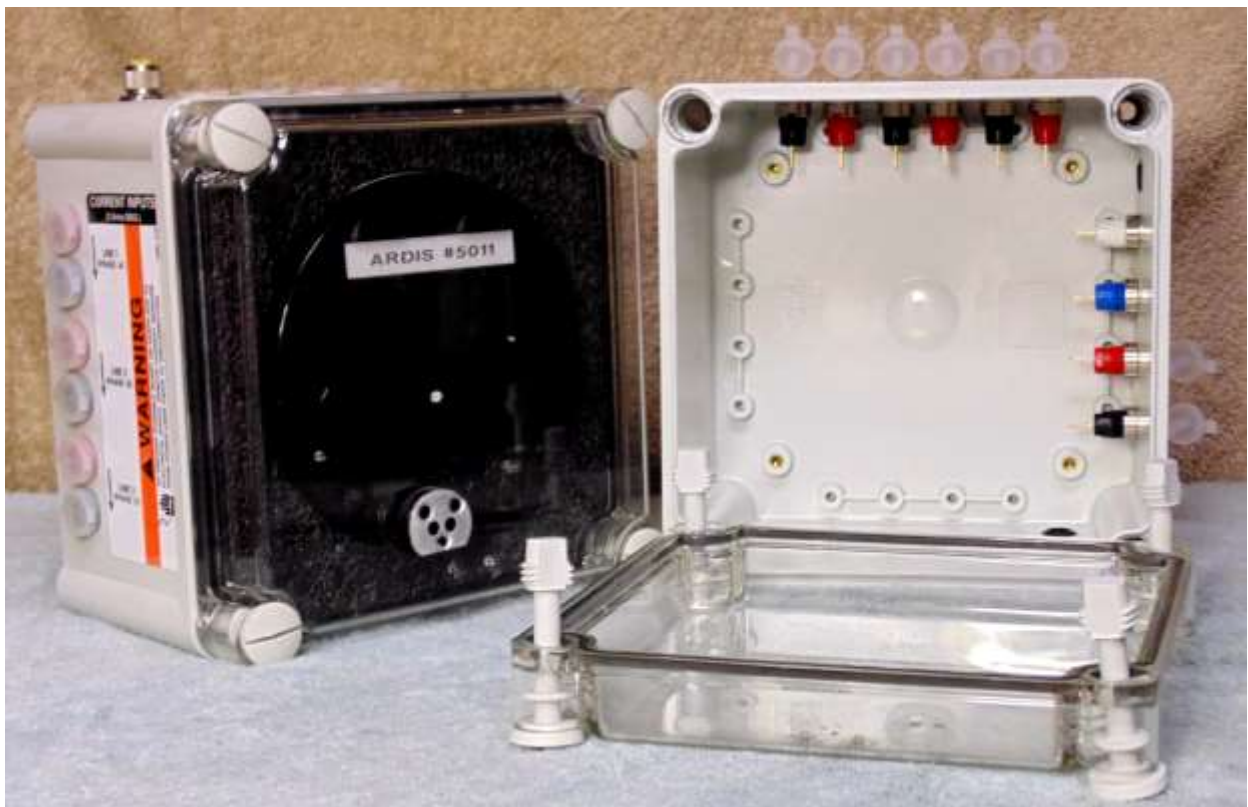
- Alan Pitegoff, AB4OZ, 4 port battery charger.
- Ken Latchum, AD4GX, putting up a tower.
- Mark Kilmer, KM4JRH, HP 302A Audio Wave Analyzer, 1959.
- Carl Davis, W8WZ, Johnson Viking 1
- John Honeycutt, N8ZU
 - 1) Restoration of Philco 41-255
 - 2) Replica batteries for tube type portable radios.
- Tom Lewis, N4TL, transistor radios

The following pages have some of the pictures from their presentations.



Alan Pitegoff, AB4OZ, 4 port battery charger

October 13, 2020 RARS meeting, continued



Alan Pitegoff, AB4OZ, 4 port battery charger

October 13, 2020 RARS meeting, continued



Taking down the tower



John Honeycutt, N8ZU, taking pictures



New location for the tower



Home Made House brackets

Ken Latchum's show and tell, A new tower, AD4GX,

October 13, 2020 RARS meeting, continued



Carl Davis, W8WZ, Johnson Viking 1

October 13, 2020 RARS meeting, continued



John Honeycutt, N8ZU, Restoration of a 1941 Philco 41-255

Screen captures during the Zoom meeting

October 13, 2020 RARS meeting, continued



John Honeycutt, N8ZU, Replica batteries for tube type portable radios.

Screen captures during the Zoom meeting

October 13, 2020 RARS meeting, continued



Battery box with six C cells and ten nine volt batteries.

Screen captures during the Zoom meeting

October 13, 2020 RARS meeting, continued

Tom Lewis, N4TL, transistor radios

The transistor was invented in 1948. Bell Labs made the first demonstration transistor radio in 1951. That radio was not put in production.

1954 First Transistor radio put in production.

Texas instruments and Industrial Development Engineering Associates worked together to design the Regency TR-1

Four germanium transistors

22.5 volt battery, 20-30 hours of operation

\$49.95 in 1954 = \$483 in 2020

140,000 made

I don't have one of these



Tom's oldest Transistor radio, a 1957 GE, P800A
five PNP Germanium transistors. Made in Utica NY

October 13, 2020 RARS meeting, continued

Tom Lewis, N4TL, transistor radios

Heathkit GR-24
Six transistor

1967, \$28.25

Inflation calculator
\$261 in 2020

Found at a roadside flea
market in PA



Zenith Royal
7000

11 band
Trans-Oceanic

1969 \$270
1979 \$300

inflation calculator
\$2,125 in 2020



Future RARS Meeting Topics

Titles, topics, and speakers subject to change.

Date	Topic	Presenter
11/10/2020	RARS Officers election and The IEEE MOVE truck: a mobile Communications & Power platform for disaster response. https://move.ieeeusa.org/	Election committee & Jay Diepenbrock, KM4EP
12/8/2020	RARS Officers induction & Heil Sound	Election committee & Dr. Bob Heil, K9EID
1/12/2021	Currently available handheld transceivers	Steve Molo, KI4KWR, GigaParts Brand Manager
2/9/2021	Homebrew building a transistor single conversion superhet receiver.	Alan Victor, W4AMV

The next few meeting of RARS will be held using Zoom at 7:30PM. Zoom is a conferencing application that runs on computers, tablets and phones. The meeting ID will be sent out to everyone via email.

Quick start guide for new Zoom users

https://support.zoom.us/hc/en-us/articles/360034967471-Quick-start-guide-for-new-users#h_b0c98dfa-d90f-486d-9617-71ab7b41a273

Zoom help center

<https://support.zoom.us/hc/en-us>

During all of our Zoom meetings please edit your name so your call is shown. Do a right click on your own image and choose rename. Add your call after your name. Thanks.

<https://www.rars.org>

RARS Birthdays

Freddie	KG4GTB	11/02
Joe	WA4GIR	11/02
Carroll	KD4JH	11/07
John	KK4ZFB	11/08
David	KN8DAP	11/08
Jeff	AC4ZO	11/08
Lynn	W9CLF	11/09
Rich	NC4EN	11/11
Steve	KN4GYT	11/11
John	K4TOO	11/11
Mike	KN4LHB	11/12
Steven	KE4QBH	11/12
Andrea Smith		11/15
Glenn	NC4NC	11/16
Ron	KD4LOE	11/18
Rolf	K8SL	11/19
Brian	KO4FIY	11/19
Nikolay	KM4UAG	11/20
Donna	KM4WRP	11/20
Donald	KJ4DNI	11/21
Jeff	K4ZXX	11/21
Bill	KG4CXY	11/24
Terri	N4ZUD	11/25
Lannie	KK4QEF	11/25
Doug	N3LTV	11/26
Stu	KM4GDP	11/28
Jeremy	KO4DYF	11/29
Rhett	KN4MRB	11/29
Robert	KJ4ITX	11/30
Clare	N2RJB	11/30

*Everyone is
welcome!*



Every Thursday there is a “**Taco Thursday**” Lunch at the Taco Bell, 7036 Knightdale Blvd, Newbern Ave. (Business 64) in Knightdale. We eat outside so bring a chair and Join the Tailgate Party. Weather permitting.

Once in a while a **Free Hamfest** is held at the Pleasant Valley Shopping Center. To find the next date go to the entry for AB4OZ in QRZ.COM. Alan posts the information there.

New Members

Burt Silverman	WB2IEL
Bill Auld	KO4IBN
Josh Owen	KO4ISE
Bill Wade	KO4GQL
Linda Gibson	KD4JMJ
Jim Earles	KC9PBW
Joseph Rymer, Jr.	KD2PJP

Interesting Websites and Information

The first transistor radio being assembled 1955

<https://www.youtube.com/watch?v=kKln6zTy4C8>

Frequency Measuring Test

<http://www.arrl.org/files/file/W1AW/Other%20FMT%20files/FMT.pdf>

Radio History, QST 1915 to 1949

From Brian Harrison, KN4R. QST from December 1915, 28 pages to December 1949, 132 pages.

<https://worldradiohistory.com/QST.htm>

Ham Radio articles

From Gary, K3OS,

I uncovered this web site today, which is a treasure trove of Ham and radio related videos and articles. I am sure a lot of you will find something of interest here. Just right for a rainy day.

<https://www.rantechology.com/index.cfm?key=main>

Project Boxes

<https://lmbheeger.com/chassis.aspx>

Drill through anything Conductive

This was received from Mike, KE4U.

Drill through anything conductive with Electrical Discharge Machining.

<https://www.youtube.com/watch?v=rpHYBz7TolI>

RARS Classifieds

Copied from <https://www.rars.org/classifieds.php>

The items below were listed within the last 30 days on the RARS website.

Palstar AT1500CV Antenna Tuner

Posted November 2nd, 2020 by: N4AGG

Contact: albertreynolds@juno.com

Palstar AT1500CV Antenna Tuner, 1500W, Very little use, none over 100W. \$300

Drake TR-7 Station

Posted November 2nd, 2020 by: N4AGG

Contact: albertreynolds@juno.com

Drake TR-7 station. One owner, purchased January 1980. Includes TR-7, PS-7 power supply, MN-7 matching network, MS-7 matching speaker, RV-7 remote VFO (bought used), Original manuals, Drake service manual, Shure 444D Microphone. Sold as package only. \$700 Pick-up in Raleigh.

FS: Arrow 146/437 10W Satellite Antenna with duplexer

Posted October 28th, 2020 by: KS4PE

Contact: patrick@ks4pe.radio

This is an Arrow 146/437 10W Satellite Antenna (solid boom with duplexer) I recently bought used. Unfortunately, I actually wanted one with a split boom for portability, but my oversight is your gain.

It's in good condition, and I've only used it a couple times. Some of the 2M elements have sun fading from the previous owner, but it's purely cosmetic.

Asking \$100. Email if interested.

WANTED: Vintage Home Computers

Posted October 23rd, 2020 by: KN4AAG

Contact: kevin.estep@gmail.com

I'm looking for vintage home computers from the late 70s and early 80s, such as:

Commodore 64/VIC-20

RARS Classifieds continued

Radio Shack Color Computer
Radio Shack TRS80 Model I/III
Texas Instruments TI99/4
Atari 400/800
etc...
(No PCs or Macs)

Old RGB or Composite Monitors that might have been used with these machines
Non-working is okay, as I'm looking for projects, and feeling nostalgic for these types of computers.

FS: 2 x 6146B and 1 x 12BY7 for Kenwood TS-530s and others

Posted October 23rd, 2020 by: KN4AAG

Contact: kevin.estep@gmail.com

I have 2 x 6146B (amplifier) and 1 x 12BY7 (driver) tubes, used in some Kenwood hybrid radios (as well as Yaesu, Heathkit, and others). Purchased at JARSfest. I no longer have the radio these were purchased for. Asking \$50 OBO.

Misc Ham Gear

Posted October 17th, 2020 by: K4HF

Contact: k4hf@arrl.net

ICE Model 309 Balanced Line Arrestor; 1KW PEP, 1.5-60MHz, 300-600 ohms - \$15
Bell Merit DX450L digital VOM - \$15
Pyramid Gold Series Power Supply, PS-8K 13.8VDC, 6-8 Amps, small size - \$20
Generic Power Supply, 13.8VDC, 3-4 Amps - \$10
Small Wonder Labs PSK-20 20 Meter QRP PSK-31 Transceiver, with manual - \$15
Kenwood H/T Alkaline Battery Cases, new, BT-11, BT-8, MBT-1, ea. \$5
Heath 2 Meter FM Power Amp HA-202A 5/40 Watts - \$15
AFCO Model RA-2-CB Antenna - \$15
Midland AM/FM/WX Alarm Radio A/c/Batt Powered - \$20
Radio Shack Atomic Radio Clock, Model 63-970, Batt/AC Powered - \$20
Uniden Trunk Tracker IV Handheld - \$45

Contact me by E Mail, preferred, or (919) 872-6555 Thanks, Chuck

RARS Classifieds continued

The Nifty! Mini-Manuals for Sale

Posted October 9th, 2020 by: W4BRB

Contact: bernardb15@att.net

3 Nifti! Mini-Manuals in like new condition for the following radios:

Uniden BCD396XT \$5.00

Uniden BCD996XT \$5.00

If you are interested please contact me at 919-614-7603.

R.L. DRAKE TR-22C 2 MTR FM TRANSCEIVER

Posted October 9th, 2020 by: WB2IEL

Contact: burtms@gmail.com

Uses external AC power, external DC power, or standard 1.5V alkaline/NiZn batteries or 1.2V NiCd/NiMH batteries. Excellent condition. Original box and manual. All accessories (cover and strap, microphone, AC cord, two 4 AA battery holders, one 6 AA battery holder.) Battery holders and transceiver designed so that either 1.5 V batteries or 1.2V batteries are usable. Nearly full complement of crystals: 11 sets for: 146.52 simplex, 146.34/94, 146.025/625, 146.085/685, 146.10/70, 146.295/895, 147.63/03, 147.915/315, 147.96/36, 146.235/835, 147.72/12. Built in whip antenna along with SO-239 connector for external high performance antenna.

\$40.00.

Burt 919-489-5007

Heathkit Model HD-1250 SOLID STATE DIP METER

Posted October 9th, 2020 by: WB2IEL

Contact: burtms@gmail.com

With manual. Requires standard 9V alkaline battery. In very good shape but for a few exceptions:

- The top surface has lost its nicely painted surface. However, the dial and wheel are perfect. The top surface paint was damaged because the plastic box was designed with black foam rubber to hold the unit securely. The foam disintegrated and I was not able to remove the remainder

RARS Classifieds continued

from the unit without messing it up.

- Two coils are broken and would need some talented craftsmanship to solder back wires and glue the RCA connector. 3.2-6.6 MHz and 1.6-3.4 MHz coils are bad, but present. Two coils between 13 and 50 MHz have smudged lettering but their range can be discerned immediately from the dial

- Case hinge is broken; foam is of course gone -- 1 or 2 rubber bands is a perfect fix.

\$10.00.

Burt 919-489-5007

For Sale By Scott Yaesu FT-817 QRP and LDG Auto Tuner LDG Z-817 Middlesex, NC

Posted October 9th, 2020 by: AB4SL

Contact: AB4SL73@gmail.com

Yaesu FT-817 QRP Rig

LDG Z-817 Auto Tuner (matches FT-817)

Interconnecting cables Included

FT-817 Rechargeable Battery Pack 9.6v 1700 mAH NI-MH

FT-817 Anderson Power Pole Adapter

Bluetooth Adapter

Wolphilink PSK Android Adapter

FT-817 Pocket Reference

Printed Manuals

\$700 OBO (Sold as an entire group only)

Contact:

Scott

919-280-8444

RARS Classifieds continued

Free to a good home - perfect for high voltage experimenters..

Posted October 7th, 2020 by: K4CKB

Contact: cbusch@nc.rr.com

Free to a good home - perfect for high voltage experimenters.. 3450V 1.2A secondary, 115/230V primary current limiting transformer. Approx 9"x9"x9" and 40-50 lbs. will deliver 3450V to no load or 1.2A into a dead short without damage. Designed for controlled arcs, NOT as a legal limit linear amp power supply (voltage sags under heavy load to limit current). You pick up. Beware: this is a potentially lethal device! Call Chris at 919-866-8742 or email cbusch@nc.rr.com.



RARS Board Meeting Minutes – September 15, 2020

* This meeting was conducted over Zoom. Next months meeting will be Zoom as well.

John Honeycutt opened the meeting at 7:06 PM.

The following were in attendance:

Members:

John Honeycutt - N8ZU

Tom Lewis - N4TL

Greg Seamster - KE4PAX

Mark Kilmer - KM4JRH

Chuck Littlewood - K4HF

Carl Davis - W8WZ

Hank Montgomery - K4HM

Tadd Torborg - KA2DEW

Alan Pitegoff - AB4OZ

Ken Latchum – AD4GX

Jeremy Lindsley – KB4JDL

A quorum was present and the previous meeting minutes were approved.

Officer/Committee Reports:

President: - John Honeycutt

The next club meeting will be Show and Tell. John asked Tom Lewis if he needed any help from the club to prepare. The only request is to announce the meeting on some of the nets. John has been in touch with the church, and they have not made a plan as when to re-open.

RARS Board Meeting Minutes continued

Treasurer: - Greg Seamster

Currently have 384 members . Greg provided an overview of the current budget. The storage unit is paid up through September 25th, 2021 at the same rate as last year. Alan has been reimbursed for the battery pack replacement for the 145.13 repeater. Greg noted the passing of club member, Bill Patterson (NC7MT) on August 30. John will send a condolence letter to his wife, Julie Patterson. A check has been sent to Alan for the reimbursement of the battery pack for the .13 repeater. The payment has been made to the storage unit as well as the certificate of insurance.

Vice President: - Tom Lewis

Meeting presentations are set up. We will have the IEEE truck in November. In January, we will have a representative from Gigaparts do a presentation on handheld transceivers. A person has been lined up to do a presentation on "Home Brew Building". Tom may try to move him to the December slot.

Public Service Director: - Jeremy Lindsley

To date, all events have been canceled. There are two remaining events. If they have been canceled as well, hence, we supported only one event for the year. It was the "Odyssey of the Mind" event. The decision was made to hold off on ordering the new safety vests.

Education Director: - Carl Davis

A number of people have contacted Carl requesting study help and testing locations. Carl has found that KB6NU is teaching all classes on YouTube, and has also found links for testing. These will be added to the RARS web page under Education Resources.

Director at Large: Tadd Torborg

Tadd has helped a new HAM get his equipment set up. John has had requests for people to be put in touch with an Elmer. Elmer requests should be sent to Tadd. Carl will also help out with any HF or CW requests.

RARS Board Meeting Minutes continued

Nomination Committee Chair: - Chuck Littlewood

Chuck thanked the committee, and noted that nominee slots have been filled.

General Discussions:

Greg; Opened a discussion of the FCC proposal to add a licensing of \$50.00 for new applications as well as renewals. He has sent an e-mail to the member list, back to 2016 describing the letter provided him by Chuck Littlewood. He has received several responses. Mark questioned the existence of a link to the FCC comment section of their web site. Chuck noted a link in Marv's last letter. Carl indicated that there is a link on the league's web site that points to said comment section and described the procedure for filing a comment.

John; Alan had mentioned an individual in Wendell who is doing VE testing, and suggested that he be added to our Ed Resources section. John also mentioned that he spoke to Joe White and conclusion is that Joe has had issues trying to set something up and there are a number of other testing resources, so he will not pursue doing any testing until circumstances change. Mark had spoken to Joe as well, and concurred.

Greg; Questioned a mention of testing in Ashville. A new HAM, on the 2 meter net said he had taken an on-line test with a group in Ashville. Carl will contact Philip, that person to get the particulars. Hank is under the impression that Mark Gibson is doing testing as well. He will contact him.

John; Marv Hoffman has indicated that he would like to have more time for a presentation than he had at the last meeting where he spoke. When to have this occur was brought to the table. Carl suggested the Marv speaking at the meetings should be spaced out, in that we have had two already this year, and that other clubs may have already been afforded his time. John will contact Marv as to his schedule.

Action Items:

John Honeycutt:

- Send a condolence letter to Julie Patterson.
- Announce Show and Tell on the nets.

RARS Board Meeting Minutes continued

- Contact Marv Hoffman to discuss his schedule. May fit into December. No commitment.

Carl Davis:

- Send Hank a note with links to the information on testing and on-line classes.
- Contact Phillip to get the information on Ashville testing.

Hank Montgomery:

- Add functionality to the website to point to Greg for visitors to gain access to the club meetings at Greg's suggestion.
- Add links per Carl's letter, to be sent, to the web site.

New Business:

Chuck Littlewood:

Brought up Honorary Life Memberships, and presented a list of who he had in mind. A determination will have to be made as to how the presentations should be handled. Zoom may be a possibility.

John Honeycutt adjourned the meeting at 8:16 PM

Meeting Minutes submitted by Mark Kilmer, KM4JRH;

Secretary, Raleigh Amateur Radio Society



RARS Membership Meeting – October 13, 2020

The normal club meeting space remains closed, due to the COVID-19, “Stay at Home Order.” The meeting was conducted using the Zoom video conferencing software.

The meeting was opened by President John Honeycutt (N8ZU), at 7:30. John requested that all attendees add their callsign to their Zoom display name.

The Pledge of Allegiance was recited.

John called for new members, visitors and recent license upgrades.

New members: Brian Higgins - (KO4HAR), Cliff Kirkhart - (KA7NSU)

A quorum was present. September minutes were approved.

Officer Reports:

President: - John Honeycutt

The RARS Board of Directors meeting will be one week from today. All members are invited. The meeting will be held at 7:00 PM, over Zoom. Login information may be obtained by request from John Honeycutt.

Vice President: - Tom Lewis

Next months meeting will be Officer Elections. And, “The IEEE MOVE truck: a mobile Communications & Power platform for disaster response.
<https://move.ieeeusa.org/>

Treasurer: - Greg Seamster

Greg reviewed the budget and financial status. Tom Lewis sold an antenna that had been contributed to the club. Greg also noted the passing of Bill Patterson (NC7MT.)

RARS Membership Meeting – Continued

Director and Committee Reports:

Nomination Committee Chair: Chuck Littlewood (K4HF)

Presented the list of nominees for club approval.

2021 Nominations Committee Report/Recommendations

RARS Officers for a Two Term:

Vice President: Tom Lewis, N4TL

Treasurer: Greg Seamster, KE4PAX

Board Members for 1-year term:

Public Service Director:	Jeremy Lindsley, KD4JDL
Public Information Officer:	Postponed
RARS Exciter Editor:	Tom Lewis, N4TL
RARSfest 2021 Chairperson:	Postponed
RARS Net Manager:	Virginia Enzor, NC4VA
Director at Large	Alan Pitegoff, AB4OZ
Director at Large	Tadd Torborg, KA2DEW
Director at Large	Ken Latchum, AD4GX
FM Repeater Chair:	Chuck DeCourt, W3WZN
W4DW, W4RNC, N4RAL Trustee:	Jeff Wittich, AC4ZO
ARRL Liaison:	Chuck Littlewood, K4HF
RARS Education Director:	Carl Davis, W8WZ
RARS Youth Director:	Brantley West, K4CBW
RARS Web Master:	Hank Montgomery, K4HM
RARS Food Service Chair:	Richard Kroeger, N1FUA
RARS NC QSO Party Chair:	Marty Young, W4MY
RARS 2021 Field Day Chair:	Curt Phillips, W4CP
RARS VE Coordinators	Liz, KO4CK & Joe White, WA4GIR

Submitted by Chuck Littlewood, K4HF

The nominations were approved by the membership.

RARS Membership Meeting – Continued

Additional Announcements:

Alan Pittegoff (AB4OZ):

The SWARC swap meet will take place October 17th.

Alan's 10m net is this coming Saturday, on 28.364.

The AB4OZ Hamfest will be November 7th. See AB4OZ QRZ page for details.

A video of the last AB4OZ Hamfest is now on YouTube.

[editor addition, <https://www.youtube.com/watch?v=ZyPNrCo11L0>]

Greg Seamster (KE4PAX):

Has set up a Zoom meeting for the SWLC (Short Wave Listeners Club). The next meeting will be Presented by Curt Phillips (W4CP). "The Rebirth of HF Radio".

The link for all Zoom meetings is the same.

Suggested signing up for the RARS-L E-mail list.

Noted the publication of Bob Condor's (K4RLC) article Dxpedition in the November edition of QST. [editor addition: see page 57]

Mike Ramsey (KD4OKR):

The SWARC swap meet setup will begin at 8:00 AM

Tadd Torborg (KA4DEW):

Announced the addition of 9 year old Sky to the TARP network.

Tonight's Program:

Tom Lewis introduced the Show & Tell event of tonight's meeting. See the November Exciter for details of the presentations.

John Honeycutt adjourned the meeting at 9:41 PM.

* Meeting minutes respectively submitted by Mark Kilmer (KM4JRH), Secretary, RARS.

Review of Yaesu FT2980R 2 Meter FM Transceiver

By: Carl Davis, W8WZ
October 2020

Recently the 2-meter rig that I had been using for about 10 years gave out. Reports of hum on my audio were the start of the problem, next came reports that my audio had become tinny and then came the reports that I was over deviating. It was time to get a new radio.

It had been a while since I went radio shopping for an FM rig so I was interested to see what offerings were on the market. There are many good products out there and the one I chose was the Yaesu FT2908R for the following reasons.

1. Price. At \$139.95 from DX Engineering the value was hard to beat. They offer free shipping on orders more than \$100 so this qualified for that offer. After tax I paid \$150.10 delivered.
2. Power. It offers 80 Watts RF output. It can be used at 5 Watts, 10 Watts, 30 Watts or 80 Watts. 80 Watts is a good bit of power for 2 meter FM work. My old radio ran 45 Watts on high power.
3. Dedicated squelch knob. Many radios these days do not have a standalone squelch knob. They require the user to press a function button to make the multipurpose knob control the squelch level. When using FM, it is very nice to be able to quickly adjust the squelch with the fast turn of an easy to use knob. I like that this radio allows that.
4. A button to instantly listen on the repeater's input frequency. Many new radios do not offer this function either. They require a multi button pressing process to hear the input frequency. When using FM Repeaters, it is nice to quickly press one button and hear the input frequency instantly, then instantly return to the repeater's output frequency again. This quick switching allows the operator to quickly see if he or she can hear the other person on the input and know if a simplex contact is possible without missing much of the transmission if it turns out the other station cannot be heard directly. Also, if a station is weak into the repeater it is easy to quickly switch to the input to see if they can be heard directly. This is especially when calling a net or when net control asks for a relay on a weak station. Making this function accessed with just a quick button press is very desirable.
5. The radio offers an adjustable mic gain control. Most FM only radios do not offer an easy way to adjust microphone gain. This radio does. It comes set to level 5 as a

default and can be adjusted for levels 1 to 9 with ease. This is helpful to make the radio's signal sound good for each operator's individual voice level and preference for where they prefer to hold the microphone when transmitting.

6. The radio does not use a cooling fan. It is a very solid radio, weighing more than 4 pounds, most of which is a heavy duty heat sink. I prefer radios that use heatsinks instead of fans for several reasons. First, fans can be noisy. Next, fans are prone to failure over the years due to the moving parts (bearings) and finally, a fan is moving dirty, dusty air around the radio and in the case of my shack, sucking my cigar and pipe smoke into it. While fans are needed in many circuits, given the choice of a circuit that needs a fan and one that doesn't, I'll choose the one that doesn't.



Yaesu FT2980R

Another feature I like is that the radio uses a dedicated push button to turn it on and off. I prefer this option over models that use the volume potentiometer as the on/off switch. The button method results in less wear on the volume pot and allows the volume level to stay at the desired level instead of needing to be re-adjusted each time the radio is turned on.

The radio arrived via Fed-Ex only 3 days after I ordered it. I was able to take it out of the box and

put it into the station without the need to consult a manual. It was very intuitive and easy to use right away. Dedicated knobs and well labeled buttons helped with that.

I have a Yaesu FT1500M that I have used for mobile operation since 2001. This radio uses the same Yaesu MH 48 Microphone as that radio. The microphone is backlit (can be turned off) with a nice red light and fits well in the hand. The menu system used on the FT2980 is very similar or identical to the menu system used by Yaesu back in 2000 when they made the FT1500M. Having used that radio for 20 years, using this one's menu system is not hard. I think it would also be very intuitive to a new user as well. The manual is as well written as any manual is and there are many videos on YouTube showing how to make the most common adjustments to the radio.

The display is large and easy to read. The display is about 1-inch-tall and 3 inches long. It is amber in color and the letters/numbers on it appear in a dark gray. It is bright and the contrast is good. There is nothing confusing or distracting with the display. The brightness level can be adjusted to user preference. It shows power level, repeater off set (- or +) or indicates simplex operation by showing neither sign, and it shows if the radio is set to VFO mode or Memory mode. Out of the box it is set to automatically use the standard repeater off set whenever a repeater frequency is entered. This can, of course, be changed in settings. But most hams will find this feature to be great.

The audio output level is more than adequate at 3 Watts. I have mine attached to an external Yaesu speaker that matched the FT101E series of radios and I only need to turn the volume knob slightly past zero to have room filling audio that is full and pleasing to the ear. The radio would do well in mobile service because of its solid construction, loud audio output and the ability to adjust mic gain to accommodate for background road noise pick up. Mine will perform its service here in the house on the operating desk.

The radio has all of the features one would expect such as PL tones, memory channels, alpha/numeric display, NOAA weather receive, scan functions and much more.

The radio comes with a mobile mounting bracket, microphone, microphone hanging clip, power cord (using standard Molex spade connectors), extra fuses, the manual and warrantee card. It is packed very well in a cardboard box that is designed to protect the radio and accessories well during shipping. The radio weighs more than 4 pounds and is about 7 inches deep, 6 inches across and 2 inches tall. The antenna jack is a standard female UHF connector and the speaker output is a 1/8" mono jack. The built in speaker is on the bottom of the radio. The design is very standard and sturdy. I think anyone looking for an analogue 2 meter FM radio would do well with the FT2908 be they a brand new ham or an experienced operator. At this price it might even be a good idea to pick one up as a backup.